AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Canceled)

2. (Presently amended): An apparatus for the pyrolysis of waste, comprising:

_____ a rotating cell formed of a cylinder, said cylinder having a diameter and two ends, in combination with a truncated cone rotating on the same axis, said truncated cone having a large base and a small base, said large base and said small base each having a diameter, the diameter of said cylinder being larger than the diameter of said large base of said truncated cone, and a region extending between said large base of said truncated cone and said end of said cylinder which is adjacent to said large base of said truncated cone,

____ said region forming a retaining threshold resulting from a difference ~~in diameter~~ between ~~said~~ the diameter of the cylinder and the diameter of the large base of the truncated cone and creating a region of intimate contact of the waste with itself whereby the waste is converted into coke which is used as fuel in the pyrolysis of the waste,

____ a hopper for charging the waste at one end of said cell, an ash box at the other end of said cell, and a recovery chimney, in connection with said cell, for recovering ~~pyrolysis~~ gases from said cell.

3. (Canceled)

4. (Presently amended) The apparatus according to Claim 2, wherein the truncated cone

further comprises a network of nozzles fed via channels distributing combustion air in a ~~substoichiometric~~ substochiometric amount, thereby combusting the coke which is used as fuel in the pyrolysis of the waste.

5-15. (Canceled)

16. (Presently amended): The apparatus according to Claim 2, wherein said region comprises a conical section positioned between said cylinder and said truncated cone.

17. (Presently amended): An apparatus for the pyrolysis of waste, comprising:

____ a rotating cell formed of a cylinder, said cylinder having a diameter and two ends, in combination with a truncated cone rotating on the same axis, said truncated cone having a large base and a small base, said large base and said small base each having a diameter, the diameter of said cylinder being larger than the diameter of said large base of said truncated cone, and a region extending between said large base of said truncated cone and said end of said cylinder which is adjacent to said large base of said truncated cone,

____ said region forming a retaining threshold resulting from a difference ~~in diameter~~ between ~~said~~ the diameter of the cylinder and the diameter of the large base of the truncated cone and creating a region of intimate contact of the waste with itself whereby the waste is converted into coke which is used as fuel in the pyrolysis of the waste.

18. (Presently amended): The apparatus according to Claim 17, wherein said region comprises a conical section positioned between said cylinder and said truncated cone.

19. (New) The apparatus according to Claim 17, wherein the truncated cone further comprises a network of nozzles fed via channels distributing combustion air in a substochiometric

amount, thereby combusting the coke which is used as fuel in the pyrolysis of the waste.

20. (New) The apparatus according to Claim 2, wherein said recovery chimney is placed on the cylinder in the rotating cell.

21. (New) The apparatus according to Claim 2, wherein the truncated cone further comprises a network of combustion air-distribution nozzles.

22. (New) The apparatus according to Claim 2, wherein a main longitudinal axis of the rotating cell is inclined with respect to the horizontal.

23. (New) The apparatus according to Claim 17, wherein a recovery chimney is placed on the cylinder in the rotating cell.

24. (New) The apparatus according to Claim 17, wherein the truncated cone further comprises a network of combustion air-distribution nozzles.

25. (New) The apparatus according to Claim 17, wherein a main longitudinal axis of the rotating cell is inclined with respect to the horizontal.